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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,699	03/04/2002	Masatomo Kamada	220156US0	2804
22850	7590	08/25/2003		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER	
			YEE, DEBORAH	
			ART UNIT	PAPER NUMBER
			1742	
DATE MAILED: 08/25/2003				

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/086,699	KAMADA ET AL.
	Examiner Deborah Yee	Art Unit 1742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on \_\_\_\_\_.

2a) This action is FINAL.                  2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1-26 is/are pending in the application.

4a) Of the above claim(s) 17 to 22 is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1 to 16 and 23 to 26 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>2-4_6</u> .	6) <input type="checkbox"/> Other: _____

**DETAILED ACTION**

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1 to 16 and 23 to 26 are, drawn to steel alloy composition and its named product, classified in class 420, subclass 107.
- II. Claims 17 to 22 are, drawn to method of heat treatment, classified in class 148, subclass 660.

The inventions are distinct, each from the other because of the following reasons:

Inventions of group II and group I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product as claimed can be made by forging, quenching and tempering.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Rohitha Jayasuriya on August 11, 2003 a provisional election was made with traverse to prosecute the invention of group I, claims 1 to 16 and 23 to 26. Affirmation of this election must be made by applicant in replying to this Office action. Claims 17 to 22 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 to 4 and 23 to 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese patent 362278251 or the Yamada et al publication, submitted by applicant .

The English abstract of JP'251 and Table 2 on page 116 of the Yamada publication discloses a low-alloy steel suitable for steam turbine material having a composition with alloying constituents whose wt% ranges overlap those recited by the claims; such overlap renders applicant's composition *prima facie* despite differences in non-overlapping areas, see *In re Malagari*, 182USPQ549 and MPEP2144.05. Moreover, English abstract of JP'251 discloses an austenite grain size number regulated to greater than 4, and Yamada discloses examples Figures 9 and 10 on pages 116 and 117 having grain size numbers from 3 to 8 which overlaps with applicant's claimed grain size number of 3 to 6.

Claims 5 to 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over European patent 1091010 (Fujita et al) which was submitted by applicant \*\*\*.

EP'010 in table 1 on page 12 discloses specific steel alloys which meet the claimed composition. In regard to microstructure, note that paragraph 25 on page 6 discloses that the low-alloy heat-resistant steel alloy can contain amounts of pro-eutectoid ferrite not larger than 10vol.% which would overlap with applicant's claimed pro-eutectoid ferrite range of from 5 to 40 vol%; such overlap renders applicant's alloy prima facie obvious over the prior art. Also paragraph 50 on page 9 discloses the presence of carbonitrides, which improve creep rupture strength.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 to 16 and 23 to 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1 to 4 and 23 to 26 recite "a metallic structure having an austenitic grain size number in a range of from 3 to 6" which does not clearly define the invention since the microstructure is not clearly stated. For clarification, it is recommended to amend claims to recite ----having a metallic microstructure of austenite wherein the austenitic grain size number is in a range of from 3 to 6---.

Claims 5 to 16 are indefinite because they recite "said metallic structure mainly contains a bainite phase and a pro-eutectoid ferrite phase yet its parent claims 1 to 4 already recite a metallic structure of austenite. For clarification, it is recommended to amend claims to recite ---said metallic microstructure having been heat treated such that the austenite has transformed to mainly bainite and pro-eutectoid ferrite.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Deborah Yee whose telephone number is 703-308-1102. The examiner can normally be reached on Monday-Friday from 6:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 703-308-1146. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-873-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

dy  
August 12, 2003

  
DEBORAH YEE  
PRIMARY EXAMINER